Amendment and Response To Office Action

May 30, 2006

STATEMENT OF COMMON OWNERSHIP OR OBLIGATION OF ASSIGNMENT TO THE SAME PERSON

The applicants hereby make the following statement.

At the time the invention of U.S. Patent Application No. 10/811,453 was made, both U.S. Patent Application No. 10/811,453 and U.S. Patent Application No. 10/377,936 (now U.S. Patent No. 6,829,077) were owned by, or subject to an obligation of assignment to, the same corporation.

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REMARKS

With the above amendments, claims 4-16 remain in the application. Claims 1-3

and 17-20 were previously canceled without prejudice. Claim 8 has been amended. No

new matter is being added.

Claim Rejection under 35 U.S.C. § 103 based on Mermelstein

Claims 4-16 stand rejected as unpatentable over Mermelstein et al (USP US

2002/0141039 A1). Applicants respectfully traverse this rejection.

Claim 4 recites a movable membrane which is limited by the following claim

language.

4. A movable membrane for light modulation, comprising:

a substantially circular optically active portion; and

a released membrane portion surrounding the circular optically active

portion, wherein:

the substantially circular optically active portion includes a plurality of

gaps configured to expose a lower surface.

(Emphasis added.)

As seen above, claim 4 requires the active portion of the membrane to include "a plurality

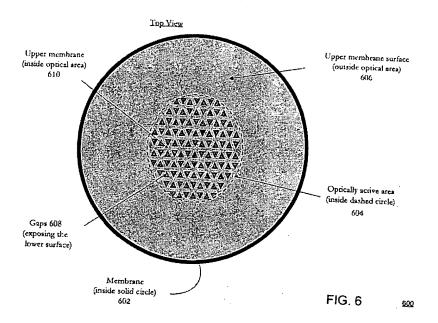
of gaps configured to expose a lower surface." An example of the plurality of gaps (i.e.

openings) in the active portion of the membrane to expose a lower surface is shown in

FIG. 6 of the present application, which is reproduced below for convenience.

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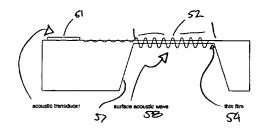
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Applicants respectfully submit that Mermelstein et al neither teaches nor suggests "a plurality of gaps configured to expose a lower surface."

Mermelstein et al discloses a diffractive element which is driven by **surface acoustic waves**. For example, the Abstract recites as follows. "A method for spatially modulating radiation including directing at least one radiative beam spot upon at least one surface acoustic wave diffractive element, and driving at least one of the surface acoustic diffractive elements with a plurality of modulating signals to generate a plurality of modulated output radiation beams having parameters."

FIG. 3 of Mermelstein et al, reproduced below for convenience.



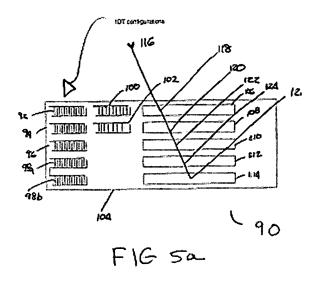
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As described in paragraph [0058] of Mermelstein et al, FIG. 3 shows the thin film 54 being driven by the surface acoustic wave 58 generated by the acoustic transducer 51. The thin membrane 54 has a mechanical impedance mismatch with the bulk piezoelectric material. As disclosed, "the thin membrane may be made by etching away part of the piezoelectric substrate." In other words, the membrane may be formed by etching away the substrate beneath it. However, **no gaps** (i.e. openings) in the thin film 54 to expose a lower surface are disclosed or suggested by Mermelstein et al, and no such gaps are needed due to the surface acoustic wave driving mechanism.

FIG. 5a of Mermelstein is reproduced below.

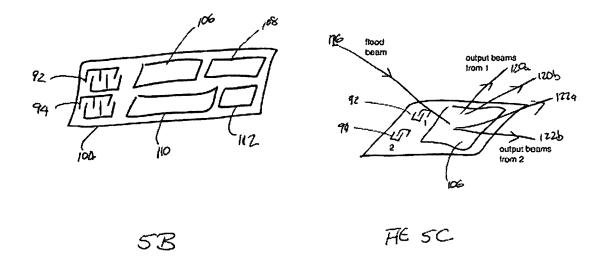


As described in paragraph [0061] of Mermelstein et al, FIG. 5a depicts multiple active areas (i.e. multiple thin films) 106, 108, 110, 112, and 114, but **no gaps** within the active areas to expose a lower surface are taught or suggested by Mermelstein et al.

FIGS. 5b and 5c of Mermelstein are reproduced below.

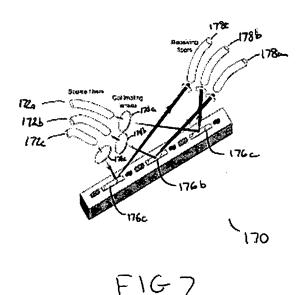
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Paragraph [0062] of Mermelstein et al describes FIG. 5b as showing multiple active areas 106, 108, 110, and 112, but **no gaps** within the active areas to expose a lower surface are taught or suggested. Paragraph [0063] of Mermelstein et al describes FIG. 5c as showing one active area 106, but **no gaps** within the active area to expose a lower surface are taught or suggested.

Paragraph [0065] of Mermelstein et al. describes FIG. 7. FIG. 7 is reproduced below for convenience.



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As described in paragraph [0065], FIG. 7 shows multiple SAW modulators 176a, 176b, and 176c, but **no gaps** within the active area of each modulator to expose a lower surface are taught or suggested.

For at least the above-described reasons, applicants respectfully submit that claim 4 is now patentably distinguished over Mermelstein et al.

Claims 5-7 depend from claim 4. Hence, applicants respectfully submit that claims 5-7 are now also patentably distinguished over Mermelstein et al for at least the same reasons as discussed above in relation to claim 4.

Claim 8 also requires "a **plurality of gaps** in the optically-active portion of the membrane." Hence, applicants respectfully submit that claim 8 is now also patentably distinguished over Mermelstein et al for at least the same reasons as discussed above in relation to claim 4.

Claims 9-16 depend from claim 8. Hence, applicants respectfully submit that claims 9-16 are now also patentably distinguished over Mermelstein et al for at least the same reasons as discussed above in relation to claim 8.

Claim Rejection under 35 U.S.C. § 103 based on Maheshwari and Hornbeck

Claims 8-16 stand rejected as unpatentable over Maheshwari (USP 6,829,077) in view of Hornbeck. Applicants respectfully traverse this rejection.

The following is a quotation from 35 U.S.C. 103(c)(1) under which this rejection is now traversed.

(c)(1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

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Per OG Notice, 1241 OG 96 (Dec. 26, 2000), applications and references (whether patents, patent applications, patent application publications, etc.) will be considered to be owned by, or subject to an obligation of assignment to, the same person, at the time the invention was made, if the applicant(s) or the attorney or agent of record makes a statement to the effect that the application and the reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person.

The present application was filed on March 25, 2004. The cited reference, U.S. Patent No. 6,829,077, issued on December 7, 2004 from U.S. Patent Application No. 10/377,936 filed on February 28, 2003. Hence, Patent No. 6,829,077 qualifies as prior art only under 35 U.S.C. 102(e). (Note that Patent No. 6,829,077 does <u>not</u> qualify as prior art under 35 U.S.C. 102(b), because it was not published more than a year before the filing date of the present application.)

Per the above "Statement of Common Ownership of Obligation of Assignment to the Same Person," both the present application and the cited reference were owned by, or subject to an obligation of assignment to, the same corporation at the time the invention of the present application was made.

Therefore, under 35 U.S.C. 103(c)(1), it is respectfully submitted that subject matter of Maheshwari (USP 6,829,077) cannot preclude patentability of the present application under 35 U.S.C. 103 based on 35 U.S.C. 103(c)(1) and the above facts. Hence, it is respectfully submitted that this rejection has now been overcome.

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Conclusion

For at least the above reasons, it is respectfully submitted that claims 4-16 are now patentably distinguished over the cited art. The Examiner is invited to telephone the undersigned at (408) 436-2111 for any questions.

The Examiner is invited to call the undersigned for any questions. Favorable action is respectfully solicited.

Respectfully submitted, Alexander P. Payne, et al.

Dated: May 30, 2006

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CERTIFICATE OF MAILING I hereby certify that this correspondence, including the enclosures identified herein, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. If the Express Mail Mailing Number is filled in below, then this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service pursuant to 37 CFR 1.10. Signature: Typed or Printed Name: James M. Okamoto Dated: May 30, 2006 Express Mail Mailing Number (optional):